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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,213	10/12/2005	Oliver Feilen	21440	5534

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EXAMINER	
CHAI, LONGBIT	

ART UNIT	PAPER NUMBER
2131	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,213	FEILEN ET AL.	
	Examiner	Art Unit	
	Longbit Chai	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 February 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Currently pending claims are 1 – 6 and 8 – 11.

Response to Arguments

2. Applicant's arguments with respect to the subject matter of the instant claims have been fully considered but are not persuasive.

3. As per claim 8, Applicant alleges that "Furukawa does not teach utilizing identifiers of data stored in memory which may be accessed and compared with similar assigned identifiers for assuring proper data for use in controlling the operations of a vehicle". Examiner respectfully disagrees because (a) Applicant's argument has no merit since the alleged limitation in controlling the operations of a vehicle has not been recited into the claim 8. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993) and (b) Furukawa teaches the decryption / encryption key is derived from the ID as a seed by using a symmetric encryption / decryption process (Furukawa : Column 14 Line 32 – 33, Column 5 Line 51 – 52 and Column 10 Line 46 – 51). Besides, Furukawa also teaches comparing the decrypted identifier which is considered as a portion of data with the originally stored identifier by extracting / decrypting the identifier using the encryption / decryption key and decrypting (decoding) the encrypted identifier which is considered as a portion of encrypted data by using the encryption / decryption key (Furukawa : Column 14 Line 32 – 37 / Line 27 – 31 and Column 5 Line 53 – 55) and as such Applicant's arguments are respectfully traversed.

4. As per claim 1, Applicant assets that "Ikeda similarly does not relate to the control of a motor vehicle and further does not teach providing for initially assigning an identifier to a set of

data stored in memory, providing a comparison of such identifier with a similar identifier in the internal memory of a microprocessor of the controller and possibly regenerating such identifier to prevent the improper usage of a memory with unsuitable data in the control of different operations of a vehicle". Examiner respectfully disagrees because (a) a control of a motor vehicle with respect to a reversible read-only memory (i.e. a ROM: according to SPEC) and a microcomputer is merely indicating the purpose / usage instead of the structure limitation of invention subject matter in terms of how to do it. Examiner further notes a reversible read-only memory storing encrypted data is one of common features in the field and thus the motor vehicle controller having a reversible read-only memory, as recited in the claim, does not add any specific patentable value to the subject matter of claimed inventions – i.e., the feature of storing said encrypted data in the reversible read-only memory, as taught by Ikeda, does not prevent the motor vehicle controller from doing that as well; furthermore, (b) Collin teaches regenerating such identifier to prevent the improper usage of a memory with unsuitable data each time the control device is started up (Collins : Column 10 Line 12 – 17); and besides, (c) Examiner notes Applicant's argument has no merit since the alleged limitation "providing a comparison of such identifier with a similar identifier in the internal memory of a microprocessor of the controller" has not been recited into the claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by

another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 8, 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Furukawa (U.S. Patent 6,526,171).

As per claim 8, Furukawa teaches a method for protecting against tampering with a device, said device comprising plurality of components, each component associated with an identifier (Furukawa : Column 5 Line 20 – 24 and Column 13 Line 6 – 13: each data image object, assigned with an ID, stored in the memory of an image processing apparatus is considered as an component / element of the system), said method comprising:

reading an identifier associated with one of said plurality of components (Furukawa : Column 5 Line 20 – 24 / Line 51 – 52: using a ID as a seed of an encryption / decryption key);

generating a decryption key from said at least one identifier (Furukawa : Column 14 Line 32 – 33, Column 5 Line 51 – 52 and Column 10 Line 46 – 51: the decryption / encryption key is derived from the ID as a seed by using a symmetric encryption / decryption process);

decrypting data stored in a memory unit with said key (Furukawa : Column 14 Line 32 – 33 / Line 27 – 31 and Column 5 Line 53 – 55: (a) extracting / decrypting the identifier by using the encryption / decryption key (b) decrypting (decoding) the encrypted identifier which is considered as a portion of encrypted data by using the encryption / decryption key); and

comparing said decrypted data with stored data (Furukawa : Column 14 Line 35 – 37: comparing the decrypted identifier which is considered as a portion of data with the originally stored identifier).

As per claim 9, Furukawa teaches generating a reference key from a reference identifier associated with a component (Furukawa : Column 5 Line 20 – 24 / Line 51 – 52 and Column 14 Line 27 – 33: using a ID as a seed of an encryption / decryption key); encrypting said reference identifier with said reference key, and storing said encrypted reference identifier as said stored data (Furukawa : Column 5 Line 51 – 53: the identifier field is included for encryption and the encrypted identifier is stored for later extraction and validation with original identifier).

As per claim 11, Furukawa teaches permitting access or activation of said component if said decrypted data is identical to said encrypted reference identifier (Furukawa : Column 10 Line 46 – 59 and Column 14 Line 35 – 37: determined by the checking of any illegal action).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1 and 3 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (EP 1,197,826 A1), in view of Collins et al. (U.S. Patent 7,055,029).

As per claim 1, Ikeda teaches a method for protecting against manipulation of a motor vehicle controller, the motor vehicle controller comprising at least one microcomputer and at least one memory module at least one of the at least one memory module constituting a reversible read-only memory (Ikeda : Para [0078], Para [0069] and Para [0065]: (a) a reversible read-only memory, according to SPEC, is a ROM that stores encrypted data. Examiner notes a

reversible read-only memory storing encrypted data is one of common features in the field and thus the motor vehicle controller having a reversible read-only memory, as recited in the claim, does not add any specific patentable value to the subject matter of claimed inventions – i.e., the feature of storing said encrypted data in the reversible read-only memory, as taught by Ikeda, does not prevent the motor vehicle controller from doing that and (b) a control of a motor vehicle with respect to a reversible read-only memory (i.e. a ROM: according to SPEC) and a microcomputer is merely indicating the purpose / usage instead of the structure limitation of invention subject matter in terms of how to do it), said method comprising:

encrypting data by an encryption process (Ikeda : Para [0068] Para [0062]: using unique encoding key);

storing said encrypted data in the reversible read-only memory (Ikeda : Para [0069] and Para [0065]: the encrypted data is stored in ROM and a reversible read-only memory, according to SPEC, is a ROM that stores encrypted data);

wherein said encrypting step comprises using a key in the encryption process (Ikeda : Para [0062]); However, Ikeda does not disclose expressly said key comprises at least one part of at least one original identifier of at least one module, said module selected from the group consisting of the at least one memory module and the at least one microcomputer of the control device, which identifier is specific to said at least one module.

Collins teaches said key comprises at least one part of at least one original identifier of at least one module, said module selected from the group consisting of the at least one memory module and the at least one microcomputer of the control device, which identifier is specific to the module (Collins : Column 7 Line 12 – 18, Column 8 Line 21 – 24 and Column 10 Line 13 – 17: different memory modules provide different unique seeds by manufacturers, as identifiers to

generate DES encryption keys so that attacking the seeds requires attack on all multiple memory cards).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Collins within the system of Ikeda because (a) Ikeda teaches providing a secured mechanism to assure the same key is stored and coincided on two different memory cards in order to startup the system (Ikeda : Para [0006] Line 36 – 38 and Para [0028]), and (b) Collins teaches an effective security mechanism to coordinate multiple memory cards by generating an unique key from a set of unique seeds stored on each individual of multiple memory cards so that attacking the seeds requires attack on all multiple memory cards (Collins : Column 7 Line 12 – 18, Column 8 Line 21 – 24 and Column 10 Line 13 – 17).

As per claim 3, Ikeda as modified teaches the identifier constitutes the identifier of the at least one memory module (Collins : Column 7 Line 12 – 18, Column 8 Line 21 – 24 and Column 10 Line 13 – 17: different memory modules provide different unique seeds by manufacturers, as identifiers to generate DES encryption keys so that attacking the seeds requires attack on all multiple memory cards).

As per claim 4, Ikeda as modified teaches the key is stored in RAM of the microcomputer (Collins : Column 7 Line 38 – 39).

As per claim 5, Ikeda as modified teaches reading out at least part of the at least one memory module of the control device to generate a key (Collins : Column 7 Line 12 – 18, Column 8 Line 21 – 24 and Column 10 Line 13 – 17) for encryption of data on a reversible read-

only memory (Ikeda : Para [0069] and Para [0065]: the encrypted data is stored in ROM) from a read-protected OTP area of the microcomputer (Collins : Column 8 Line 21 – 24).

As per claim 6, Ikeda as modified teaches re-generating a key for decryption of the data which have been stored encrypted in the reversible read-only memory, each time the control device is started (Collins : Column 10 Line 12 – 17).

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (EP 1,197,826 A1), in view of Collins et al. (U.S. Patent 7,055,029), and in view of Yeung et al. (U.S. Patent 7,111,167).

As per claim 2, Ikeda as modified does not disclose expressly the identifier constitutes the identifier of the microcomputer.

Yeung teaches the identifier constitutes the identifier of the microcomputer (Yeung : Column 1 Line 35 – 44).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Yeung within the system of Ikeda as modified because (a) Ikeda teaches providing a secured mechanism to store an unique encryption key beforehand in unalterable ROM (Ikeda : Para [0062] Line 27 – 28 and Para [0065] Line 50 – 51), and (b) Yeung teaches an enhanced security mechanism by generating an encryption key unique to each CPU processor not depending upon the CPU serial number so that the users can not read out the key like a serial number (Yeung : Column 1 Line 35 – 44).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa (U.S. Patent 6,526,171), in view of Naclerio (U.S. Patent 7,028,014).

As per claim 10, Furukawa does not disclose expressly said storing step comprises inputting said stored data into an EEPROM.

Naclerio teaches said storing step comprises inputting said stored data into an EEPROM (Naclerio : Column 3 Line 10 – 13).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Collins within the system of Furukawa because (a) Furukawa teaches providing a secured mechanism to encrypt all or part of the data including the identifier of the image object stream for data protection (Furukawa : Column 5 Line 49 – 53) and (b) Naclerio teaches an effective way to protect a large part of data by encrypting and storing into a EEPROM so that the required battery power can be minimized and yet the large body of the data will be inaccessible in the event of tampering (Naclerio : Column Column 3 Line 17 – 21 / Line 10 – 13).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Longbit Chai
Examiner
Art Unit 2131

LBC

SYED A. ZIA
PRIMARY EXAMINER